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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,370	11/14/2003	Sheri L. McGuire	3788	1852
22474	7590	09/12/2005	EXAMINER	
DOUGHERTY, CLEMENTS, HOFER, BERNARD & WALKER 1901 ROXBOROUGH ROAD SUITE 300 CHARLOTTE, NC 28211			SPERTY, ARDEN B	
		ART UNIT	PAPER NUMBER	
		1771		

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/714,370	MCGUIRE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Arden B. Sperty	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on Application filed 11/14/03.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-32 is/are pending in the application.

4a) Of the above claim(s) 29-32 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-28 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/15/03.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. This application contains claims directed to the following patentably distinct species of the claimed invention:
2. A nonwoven article comprising binder, wherein the binder material is either fibrous (species 1) or liquid (species 2).
3. If Applicant intends distinction to be given due to the phase of the intermediate, then it is evident that separate species are claimed. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.
4. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-6, 8-9, and 18-21 are generic.
5. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

6. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

7. During a telephone conversation with Gregory Clements on August 10, 2005 a provisional election was made with traverse to prosecute the invention of the species wherein a fibrous binder material is required, claims 10-17, 23-28, and claims 7 and 22 where the binder is bicomponent or polymer fiber. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7 and 22, wherein the binder is a latex resin, are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention. Claims 29-32 are further withdrawn as being directed to a non-elected invention. Although claim 29 does not specifically recite a latex or liquid binder, the only binder and FR resin combinations found in the specification are understood to be liquid (page 6, first full paragraph to page 7, line 5). Therefore claims 29-32 are withdrawn because they are directed to a non-elected invention.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Objections***

9. Claims 10-14, 16-17, 25-26 are objected to because of the following informalities:

The terminology of dependent claims 10-14 and 16-17 is inconsistent with the independent claims:

Claim 10, line 2, should read "said FR resin coated natural fiber."

Claim 11, line 2, should read " said FR resin coated cotton."

Claim 12, line 2, should read "said FR resin coated synthetic fiber."

Claims 13-14 and 16-17, line 2 in each claim, should read "said FR resin coated rayon."

Claims 25-26, line 2 in each claim, should read "said inherent(ly) FR rayon."

Appropriate correction is required.

10. Claim 28 should be amended to clarify that "said polyester" at the end of line 2 refers to the "other synthetic fiber" in claim 23. Claim 28 needs to be clarified because claim 23 recites polyester as two different components: "inherent FR fiber is rayon, polyester or both" and "other synthetic fiber is polyester."

***Claim Rejections - 35 USC § 112***

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for many types of fibers, some with coatings and some without, does not reasonably provide enablement for the scope of the term "uncoated" in the claims. The specification describes many types of fibers, some with coatings, some without. The specification does not use the term "uncoated" to refer to any particular type of fibers, so it is unclear what scope Applicant intends when using the language in the claim.

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what applicant intends as encompassed by "uncoated" fibers.

15. Claims 1-17 are further indefinite because it is not clear whether Applicant intends "uncoated" to refer to the intermediate fibers, or if "uncoated" refers to uncoated fibers in the final product? If Applicant intends uncoated fibers in the final product, then Applicant is required to point to enablement for the feature in the specification. It is the examiner's understanding that the products recited by the specification would not have any fibers remaining "uncoated."

16. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since

the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). In the present instance, claim 2 recites the broad recitation "phosphorous compounds", and the claim also recites a variety of specific phosphorous-containing compounds, which are the narrower statements of the limitation.

17. Claims 4 and 5 are indefinite because it is unclear which synthetic fiber in claim 1 is referred to. Claim 1 recites two allegedly different synthetic fibers, yet claims 4 and 5 do not specify to which synthetic fiber reference is made.

***Claim Rejections - 35 USC § 102***

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

19. Claims 1-5, 7, 12, 15, 18-20, 22-24 are rejected under 35 U.S.C. 102(a) as being anticipated by JP 2002348766 (JP '766).

20. The JP '766 reference teaches a flame retardant sheet material comprising a nonwoven fabric. The nonwoven material comprises binder fiber in an amount of 3-15%

(para. 19). Binder materials are listed, as is a conjugate-fiber form for the binder fibers, thus anticipating the claimed bicomponent structure (para. 17). The fibers used in the nonwoven include base fibers and a flame retardant fiber selected from flame retardant rayon and a modacrylic fiber (para. 9). The base fibers may be any of the synthetic fibers listed in paragraph 14. The reference further teaches flame retardant resin coated on fibers (para. 11; para. 29). It is the examiner's understanding of the present application that there are no fibers remaining uncoated in the final product, because all fibers would either be coated with melted binder or by flame retardant compositions. Likewise, it appears that there are no "uncoated" fibers in the final product taught by the JP '766 reference; it is understood that all fibers would either be coated by a flame retardant resin coating (para. 11; para. 29) or by melted binder. Thus, the limitations of claims 1, 3, 7, 12, 15, 18-20, 22-24 are met.

21. Regarding claim 2, the flame retardant compounds include phosphoric-acid-esters (para. 11).

22. Regardless of which synthetic fiber of claim 1 is referred to by claims 4 and 5, the limitations are presumably met by the teaching of the reference to include the flame retardant composition in the fiber making process (inherent FR) and/or as a coating.

23. Claims 1-10, 12, and 15, are rejected under 35 U.S.C. 102(e) as being anticipated by US Publication No. 2004/0028958 to Assink et al, having priority to 6/18/2002.

24. The Assink reference teaches fire retardant nonwoven batts comprising a fire-retardant cellulose, a fiber component, and a binder component (abstract).

25. Regarding claim 1, the binder fiber is included in an amount of from 15-70%, thus anticipating the amount of low melt binder required by claim 1 (para. 5). The fire-retardant cellulose component anticipates the synthetic and/or natural fiber coated with an FR resin material (para. 7, para. 21) of claims 1 and 2. The additional fiber component dispersed throughout the body (para. 5) anticipates the claimed uncoated synthetic and/or natural fiber. Materials for the additional fiber component include thermoplastic polymers, aramid, rayon, and natural fibers (para. 20). PET is also considered (para. 26, page 4). Thus the limitations of claims 3-7 are met.

26. Numerous embodiments are recited in the reference. Regarding claim 8, FR cellulose is included in an amount of from about 15% to about 85% (para. 5). Regarding claim 9, the fiber component dispersed throughout the body is included in an amount of from about 15% to about 60% (para. 5).

27. Regarding claims 10, 12, and 15, the low melt binder is provided in the form of a bicomponent fiber (para. 24). Cotton or rayon fiber may be provided (para. 20), and will be coated with fire retardant material once the final product is formed (para. 33-36). Additional fibers may include acrylic (analogous to the claimed "modacrylic") elements (bottom of para. 25) and PET components (para. 26, page 4). Thus the limitations of the claims are met, as best can be determined in light of the 35 USC 112 rejections above.

***Claim Rejections - 35 USC § 103***

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

29. Claims 11, 13-14, and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication No. 2004/0028958 to Assink et al, having priority to 6/18/2002, as applied to claim 1 above.

30. The reference teaches optimization of each component for varying and predictable results (para. 27 and Table I). Therefore, absent a showing if unexpected results with the claimed proportions, it would have been obvious to one of ordinary skill in the art to optimize the amounts of each component for desired results.

31. Claims 18- 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication No. 2004/0028958 to Assink et al, having priority to 6/18/2002, further in view of US Patent 6297178 to Berbner et al.

32. The Assink reference teaches about 15% to about 70% binder (para. 5) which may be provided in bicomponent form (para. 24), and additional synthetic and/or natural fibers (throughout reference). The reference is silent with respect to the inclusion of inherently FR fibers. The Berbner reference teaches nonwoven batts having similar proportions of natural and synthetic fibers, with flame retardant properties provided by additional melamine resin fibers (col. 1, line 63- col. 2, line 23), and flame-proof viscose

rayon (col. 1, lines 42-55). It would have been obvious to one of ordinary skill in the art to include the fibers taught by Berbner, and other inherently flame-resistant fibers commonly known in the art such as polyester, motivated by the desire to enhance the flame retardant properties of the product, and improve or modify the fabric hand or texture.

33. Regarding claims 20-21, Assink teaches fiber components dispersed throughout the body (para. 5), thus anticipating the claimed synthetic and/or natural fiber. Materials for the additional fiber component include thermoplastic polymers, aramid, rayon, and natural fibers (para. 20). PET is also considered (para. 26, page 4). Regarding claim 22, the low melt binder is provided in the form of a bicomponent fiber (para. 24).

34. Regarding claims 25-28, Assink teaches optimization of each component for varying and predictable results (para. 27 and Table I). The same can be said for the additional components; optimization of the amounts of each constituent is within the ordinary level of skill of one in the art. Therefore, absent a showing if unexpected results with the claimed proportions, it would have been obvious to one of ordinary skill in the art to optimize the amounts of each component for desired results.

### ***Double Patenting***

35. Claims 1-28 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of copending Application No. 10/392999. Although the conflicting claims are not identical,

they are not patentably distinct from each other because the claims are drawn to overlapping inventions.

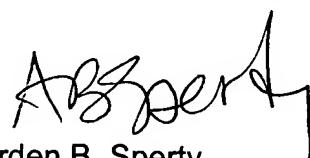
This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arden B. Sperty whose telephone number is (571)272-1543. The examiner can normally be reached on M-Th, 08:00-16:00.

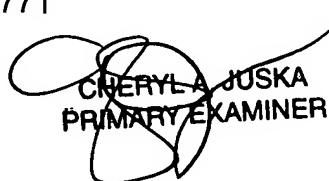
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571)272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Arden B. Sperty  
Examiner  
Art Unit 1771

August 19, 2005



CHERYL A. JUSKA  
PRIMARY EXAMINER